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1H and31P NMR study of the structure of 2-R-4-methyl-6,6-diphenyl-1-phospha-2,3-diazabicyclo [3.1.0]hex---ene and 2,3,4,5-tetrahydro-1,2,3-diazaphosphorine derivatives

Arbuzov B., Dianova E., Samitov Y.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

1. The reaction of 2-R-5-methyl-1,2,3-diazaphospholeswith diphenyldtazomethane leads to the formation of 2-R-4-methyl-6,6-diphenyl-1-phospha-2,3-diazabicyclo[3.1.0]hex-3-enes which, upon heating with alcohols and reaction with dry HCl, convert to derivatives of 2,3,4,5-tetrahydro-1,2-diaza-3-phosphorines. 2. The stereochemical dependence of the3JP(III)CCH vicinal coupling constant on the dihedral angle for these phosphorines indicated predominant half-chair conformation with pseudoequatorial orientation of the phosphorus unshared electron pair orbital. © 1983 Plenum Publishing Corporation.

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